



# **Business Management Modernization Program**

**Architecture Overview**

**For SFIS Team**

**August 26, 2005**

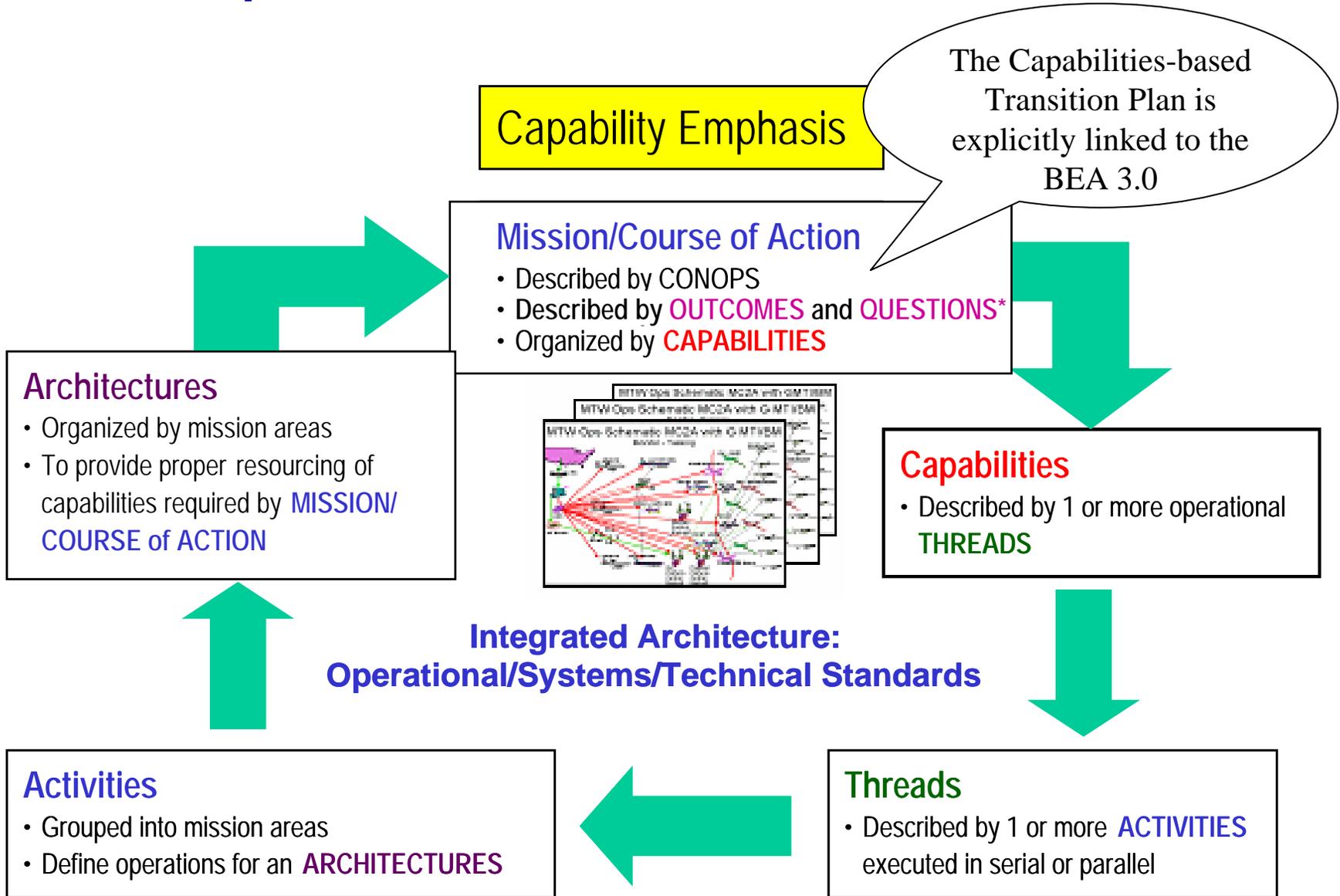
# How Does Architecture Relate to the Real World?

|  |
|--|
| <b>AV-1/2</b><br><b>Scope and Definition</b> |
| <b>OV-2</b><br><b>Operational Nodes</b>      |
| <b>OV-3</b><br><b>Information Exchange</b>   |
| <b>OV-5</b><br><b>Activity Model</b>         |
| <b>OV-6a</b><br><b>Business Rules</b>        |
| <b>OV-6c</b><br><b>Process Model</b>         |
| <b>OV-7</b><br><b>Data Model</b>             |
| <b>SV-1</b><br><b>System Interfaces</b>      |
| <b>SV-5</b><br><b>System Functions Map</b>   |
| <b>SV-6</b><br><b>Systems Data Exchange</b>  |
| <b>TV-1</b><br><b>Standards</b>              |



|   |
|---|
| <b>Executive Overview and Encyclopedia</b>                        |
| <b>Who does what?</b>   |
| <b>Who Says What to Whom?</b>                                     |
| <b>What gets done?</b>  |
| <b>What are the rules?</b>  |
| <b>How do things get done?</b>                                    |
| <b>What data supports the information needs?</b>                  |
| <b>What IT resources are available to support what gets done?</b> |
| <b>What can be supported through IT automation?</b>               |
| <b>What information is exchanged between systems?</b>             |
| <b>What are the standards?</b>                                    |

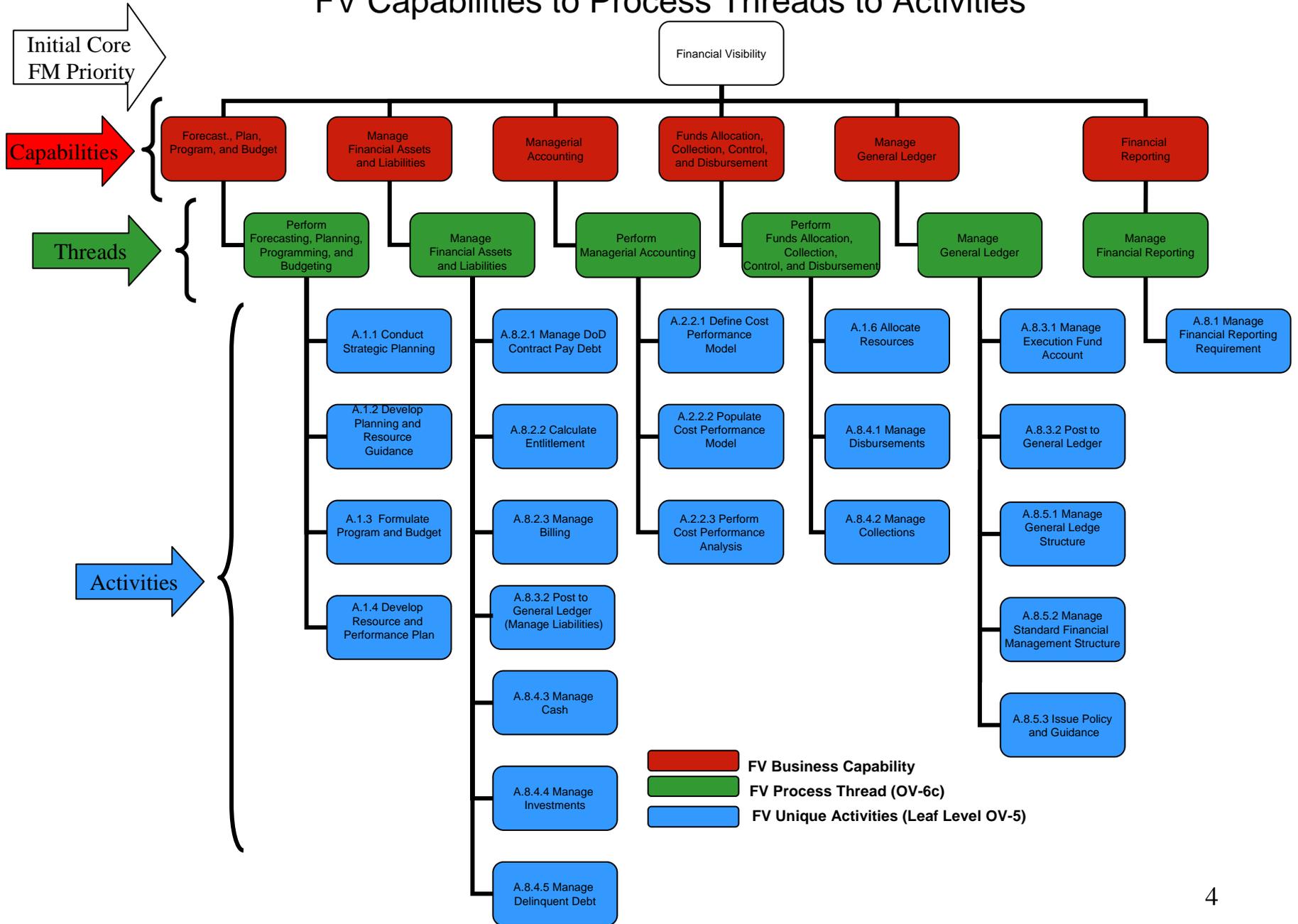
# Capabilities Described with Architectures



Source: DoD Architecture Framework Deskbook (v 1.0) August 2003

(\* -- inserted item)

# FV Capabilities to Process Threads to Activities



# Questions To Be Answered

## ENTERPRISE QUESTIONS

- Who are our people, what are their skills, where are they located?
- Who are our industry partners, and what is the state of our relationship with them?
- What assets are we providing to support the warfighter, and where are these assets deployed?
- How are we investing our funds to best enable the warfighting mission?**

## FINANCIAL VISIBILITY QUESTIONS

- What functions and process standards, interoperability standards, and data standards are needed to provide accurate and timely information for financial visibility?
- What functions and process standards, interoperability standards, and data standards need to exist to provide accurate financial information?

## INTEGRATION OUTCOMES TO TEST SAMPLE THREADS

- Can we provide accurate and timely financial information to support management decision making?
- Can we ensure that funds are used in accordance with the budget and that program performance supports achieving strategic capabilities?
- Can we provide financial reporting and financial accountability that is ultimately supported by program accountability?
- Can we capture the full costs of DoD programs, assets, and liabilities?
- Can we ensure accurate and timely payments to DoD business partners and service members?

# BEA 3.0 INTEGRATION MATRIX

| BEA 3.0 INTEGRATION MATRIX  |   | AV-1 Scope                                | AV-2 Encyclopedia     | OV-2 Operational Nodes |           | OV-3 Information Exchange |             |                 |                | OV-5 Operational Activities |                 |          |            | OV-6a Business Rules | OV-6c Process Model |              | OV-7 Data Model | SV-1 System Interfaces | SV-5 System Functions | SV-6 System Data Exchange | TV-1 Standards | Transition Plan |
|-----------------------------|---|---|-----------------------|------------------------|-----------|---------------------------|-------------|-----------------|----------------|-----------------------------|-----------------|----------|------------|----------------------|---------------------|--------------|-----------------|------------------------|-----------------------|---------------------------|----------------|-----------------|
|                             |   | Scoping Questions, Outcomes, Capabilities | Definitions, Glossary | Operational Nodes      | Needlines | IER Names                 | IER Sources | IER Destination | IER Attributes | Activities                  | Inputs, Outputs | Controls | Mechanisms | Rules                | Processes           | Data Objects | Entities        | Systems                | System Functions      | SDE                       |                |                 |
| AV-1 Scope                  | Scoping Questions, Outcomes, Capabilities |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| AV-2 Encyclopedia           | Definitions, Glossary                     |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| OV-2 Operational Nodes      | Operational Nodes                         |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
|                             | Needlines                                 |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| OV-3 Information Exchange   | IER Names                                 |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
|                             | IER Sources                               |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
|                             | IER Destination                           |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
|                             | IER Attributes                            |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| OV-5 Operational Activities | Activities                                |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
|                             | Inputs, Outputs                           |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
|                             | Controls                                  |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
|                             | Mechanisms                                |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| OV-6a Business Rules        | Rules                                     |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| OV-6c Process Model         | Processes                                 |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
|                             | Data Objects                              |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| OV-7 Data Model             | Entities                                  |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| SV-1 System Interfaces      | Systems                                   |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| SV-5 System Functions       | System Functions                          |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| SV-6 System Data Exchange   | SDE                                       |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| TV-1 Standards              |   |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |
| Transition Plan             |   |   |                       |                        |           |                           |             |                 |                |                             |                 |          |            |                      |                     |              |                 |                        |                       |                           |                |                 |

# Standard Financial Information Structure

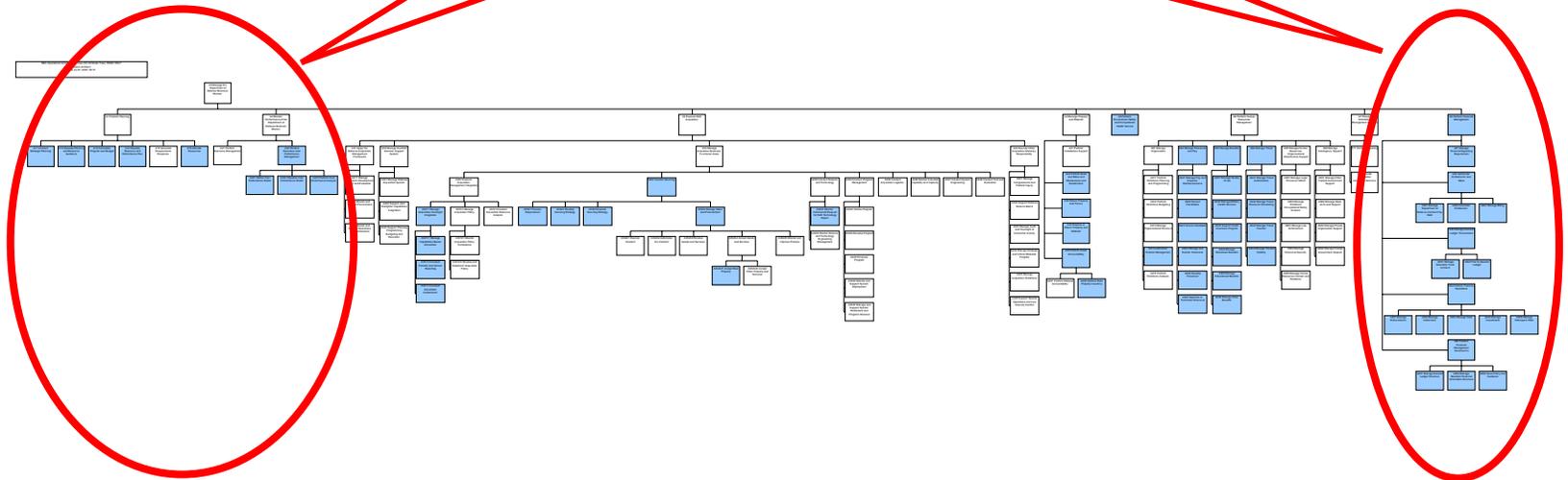
- SFIS is the Department's common business language—supports budgeting, accounting and financial reporting, and performance-based management processes.
- SFIS is based on financial management information requirements mandated by the OMB and Treasury.
- SFIS is most visible within the BEA OV-7 data model, OV-6C process models, and OV-6A business rules.
  - SFIS data elements are defined within OV-7 as entities and attributes.
  - SFIS data elements are cited on data objects within OV-6C process flows across all CBMs.
  - SFIS business rules are linked to OV-6C business processes and data objects.
  - Additional BEA Version 3.0 architecture products also reflect SFIS impact
- As additional business requirements are addressed in subsequent BEA iterations, SFIS impact will be reflected.

# Standard Financial Information Structure

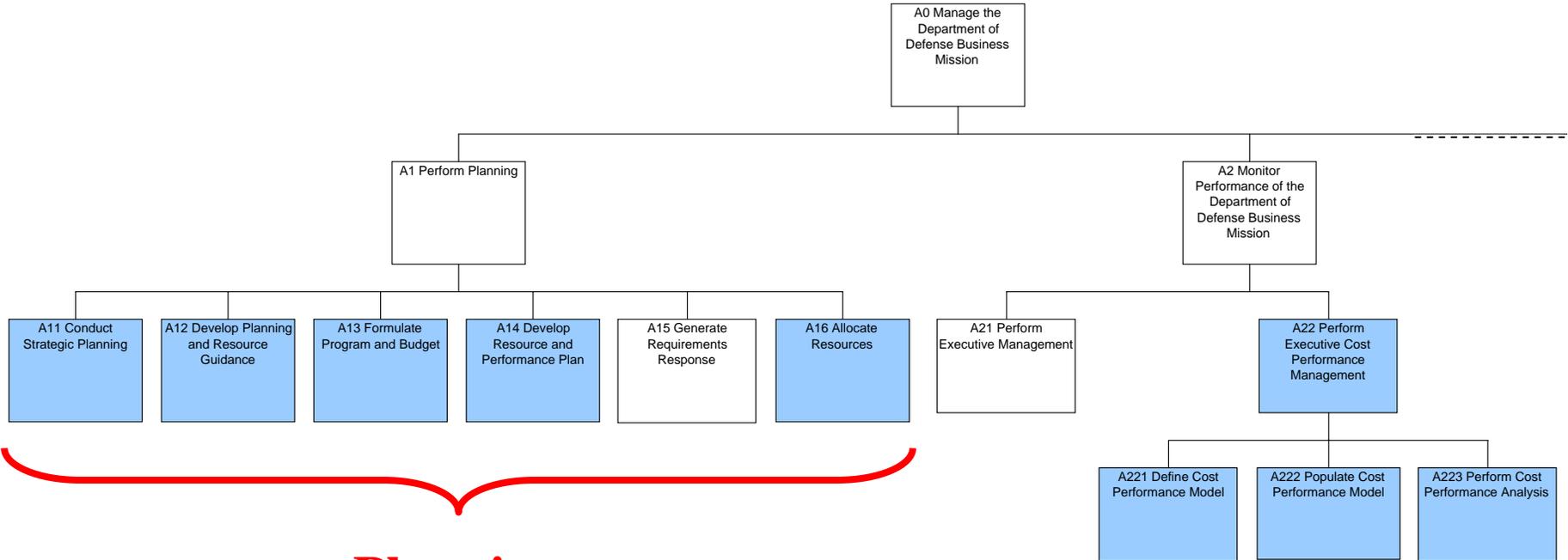
- SFIS is a critical element of BEA Version 3.0 that addresses specific NDAA information structure requirements (Section 332, Paragraph 2222.d.1.).
- Key SFIS data elements are established during Programming, Planning, and Budgeting
- During budget execution, the originally established accounting classification is referenced using Allocation UID and Demand UID, not re-created.
- As operational business events trigger financial transactions, additional SFIS transactional information, trading partner information, and cost accounting information is generated and referenced to the accounting classification using the Allocation UID and Demand UID.
- Any business system performing FM operations or triggering financial transactions must use applicable SFIS data elements defined in BEA.

# OV-5 Node Tree -- What Gets Done?

FV Functions  
of the BEA 3.0



# OV-5 Node Tree

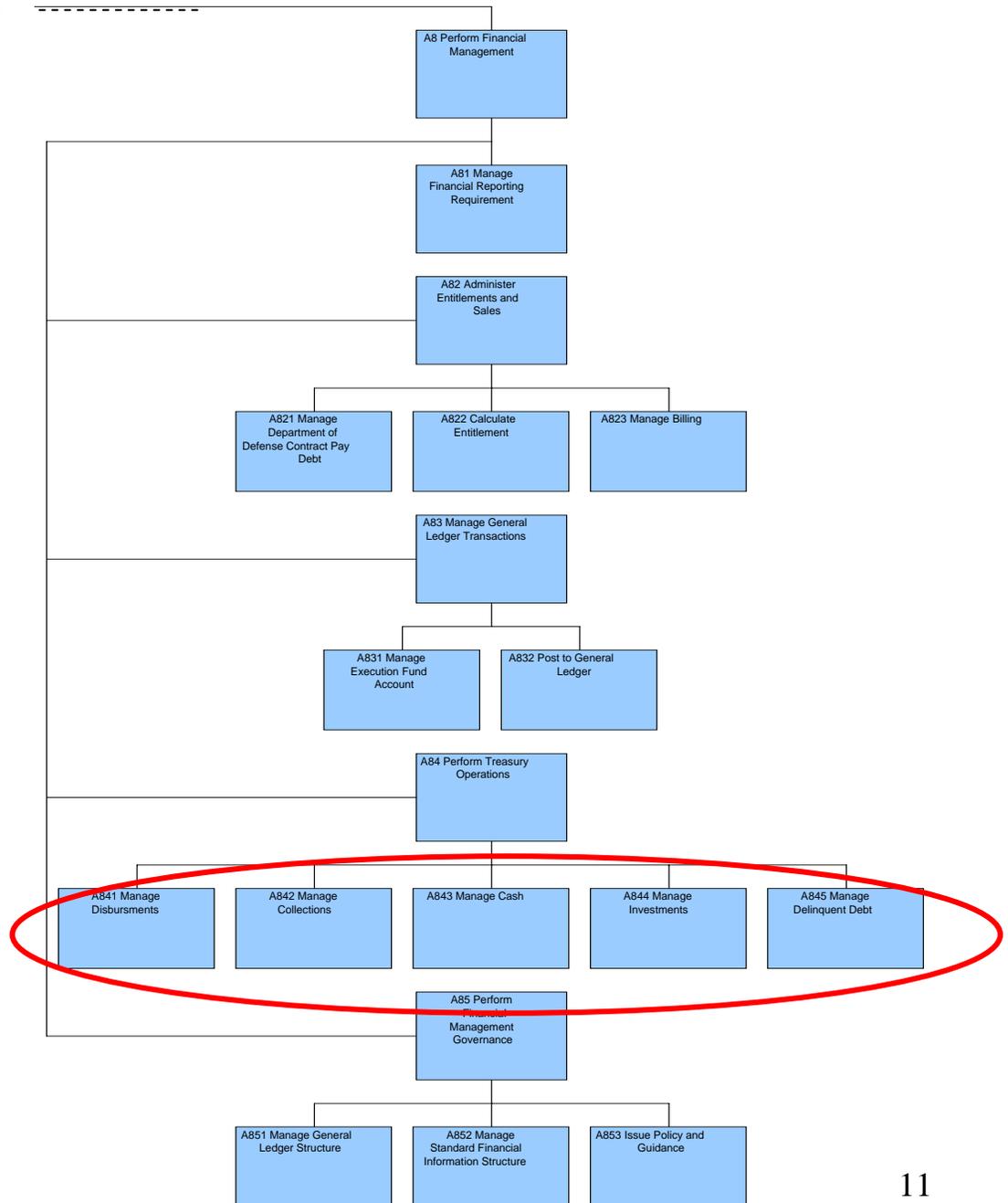


**Planning,  
Programming, and  
Budgeting**

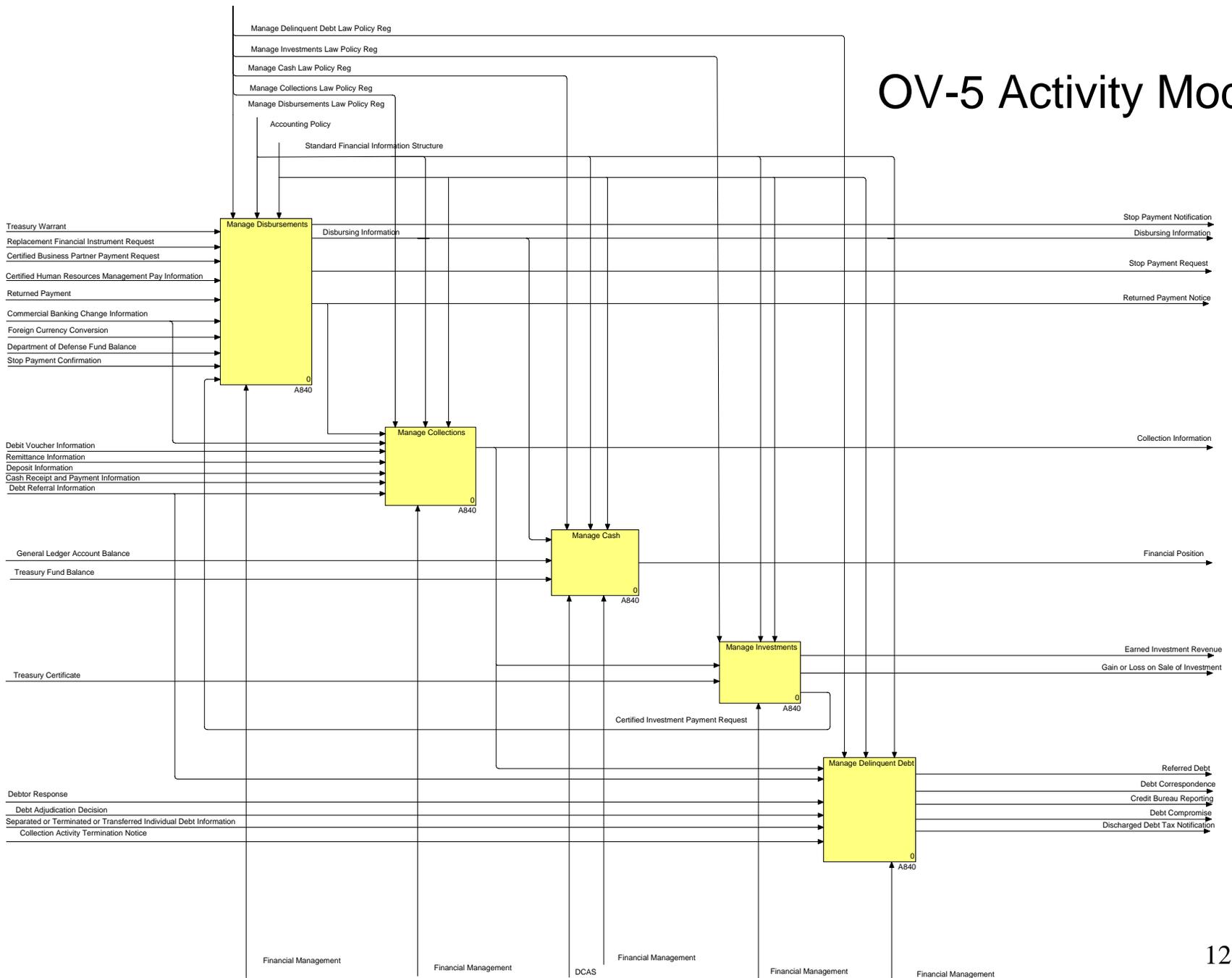
**Cost  
Performance**

# OV-5 Node Tree

## Financial Management



# OV-5 Activity Model



# FV OV-6c – A1 Level

## How Do Things Get Done?

- 1.1 Conduct Strategic Planning
- 1.2 Develop Planning and Resource Guidance
- 1.3 Formulate Program and Budget
- 1.4 Develop Resource and Performance Plan

- 1.6 Allocate Resources
- 8.4.1 Manage Disbursements
- 8.4.2 Manage Collections

- 8.2.1 Manage DoD Contract Pay Debt
- 8.2.2 Calculate Entitlement
- 8.2.3 Manage Billing
- 8.3.2 Post To General Ledger (Manage Liabilities)
- 8.4.3 Manage Cash
- 8.4.4 Manage Investments
- 8.4.5 Manage Delinquent Debt

Perform Forecasting, Planning, Programming, and Budgeting

Perform Managerial Accounting

Manage General Ledger

Manage Financial Assets and Liabilities

Perform Financial Reporting

- 2.2.1 Define Cost Performance Model
- 2.2.2 Populate Cost Performance Model
- 2.2.3 Analyze Cost Performance Model

- 8.3.1 Manage Execution Fund Account
- 8.3.2 Post to General Ledger
- 8.5.1 Manage General Ledger Structure
- 8.5.2 Manage Standard Financial Information Structure
- 8.5.3 Issue Policy and guidance

8.1 Manage Financial Reporting Requirement

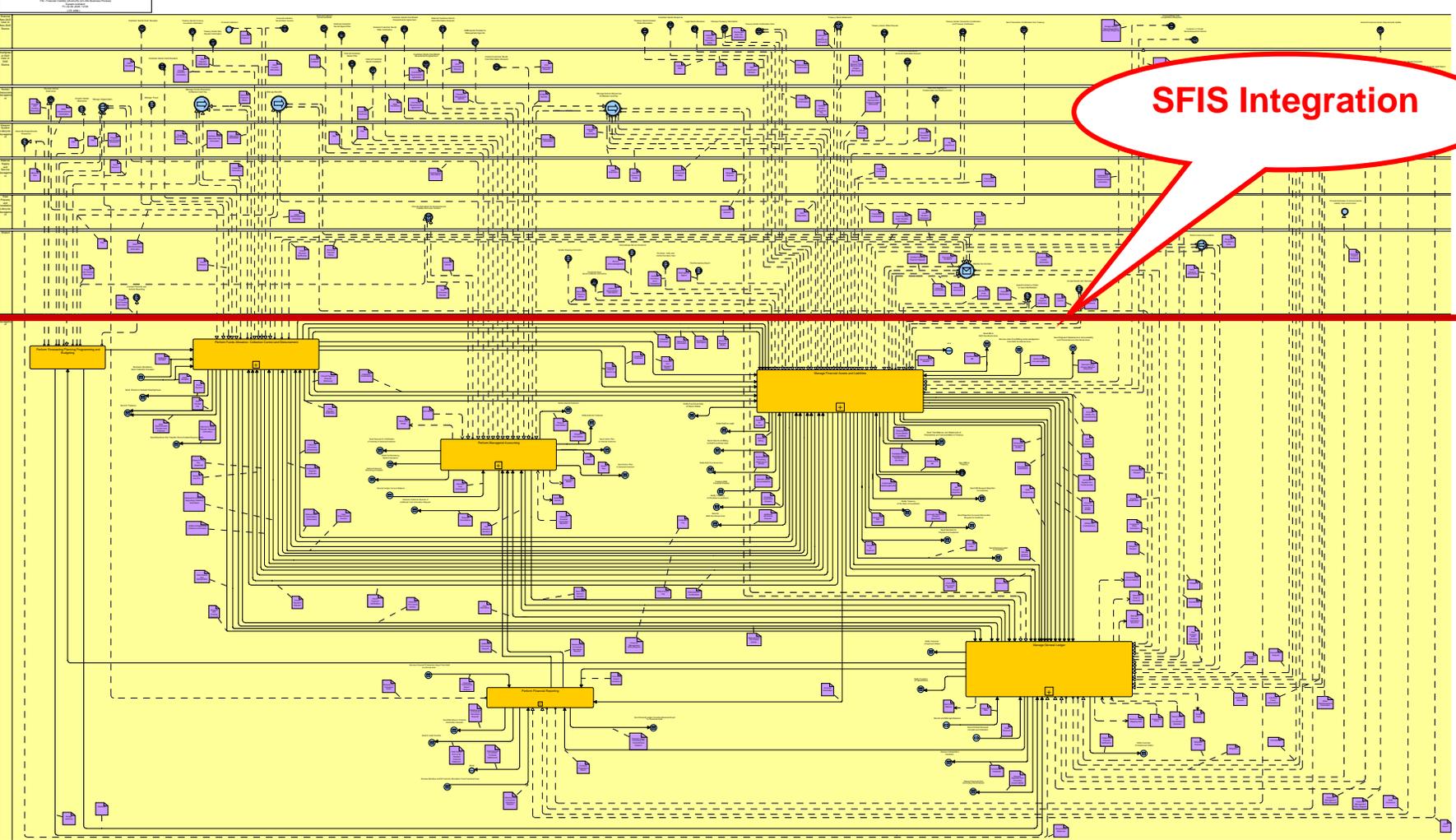
FV BEP Capabilities Aligned with OV-6c Processes

- 1.1 Conduct Strategic Planning
- 1.2 Develop Planning and Resource Guidance
- 1.3 Formulate Program and Budget
- 1.4 Develop Resource and Performance Plan
- 1.5 Develop Requirements Strategy

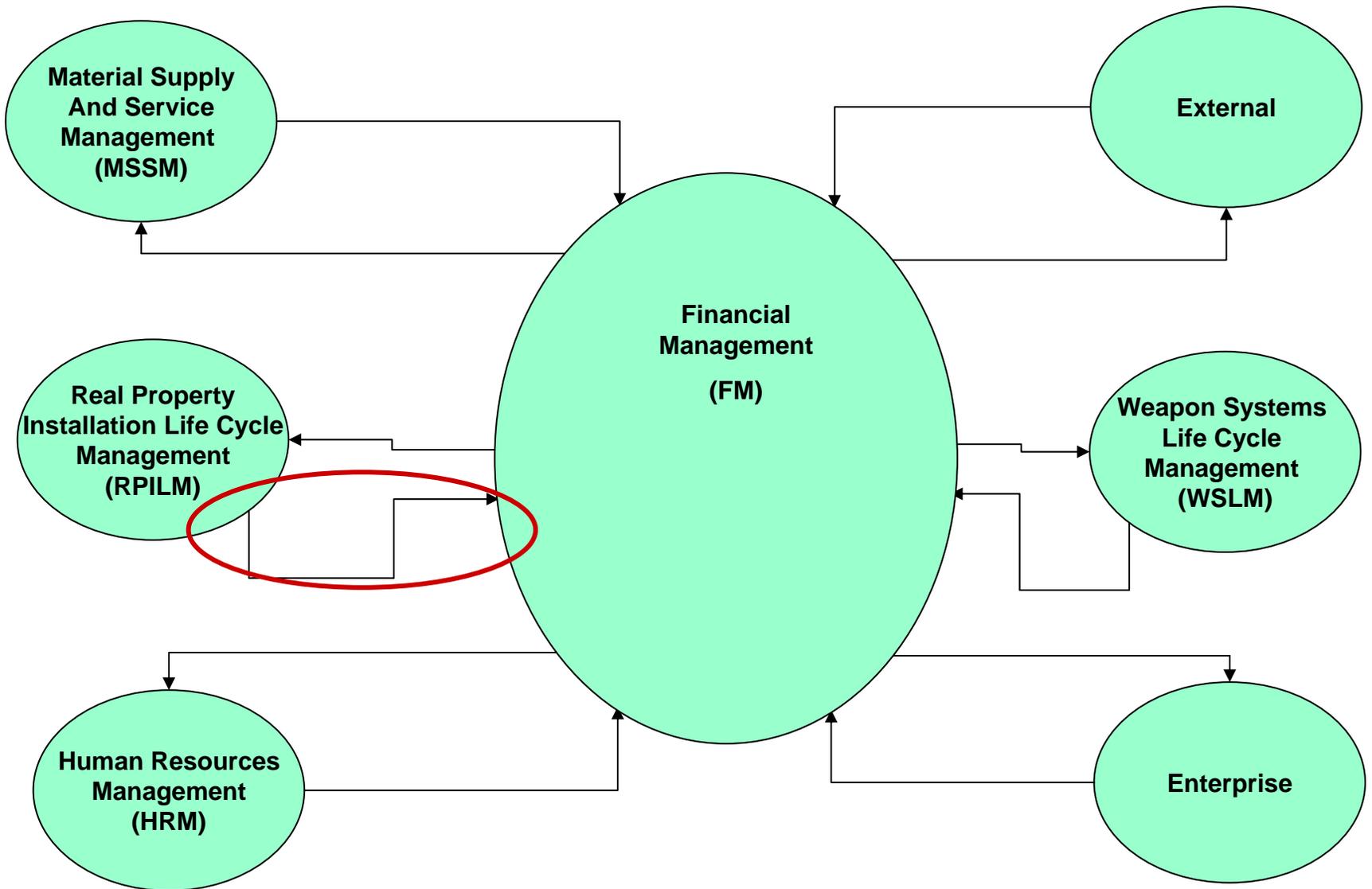
FV BEP OV-5 Activities Aligned with OV-6c Processes

# FV OV-6c – A1 Level – How Do Things Get Done?

**SFIS Integration**

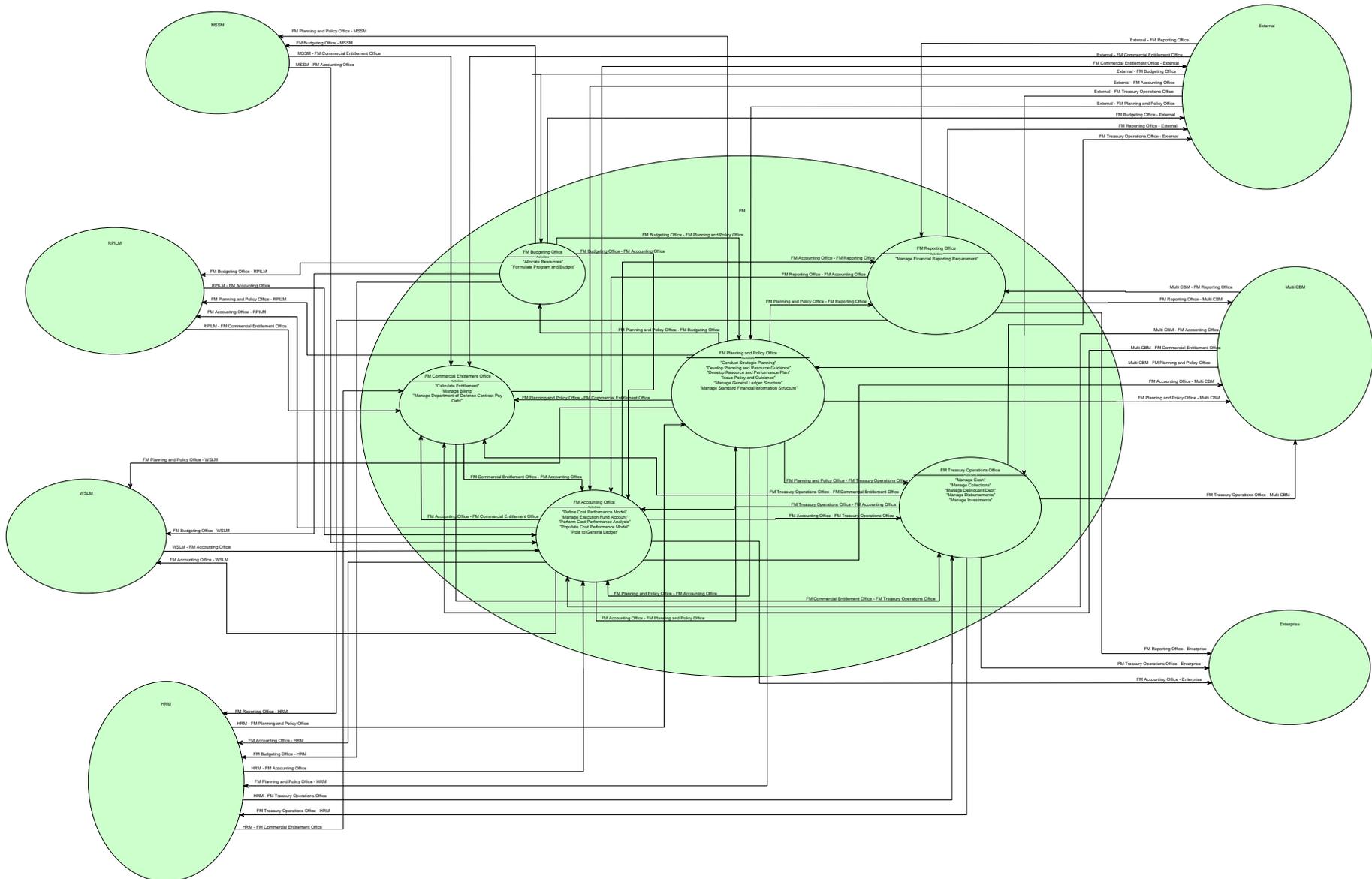


FV OV-2 – A0 Level –  
Who Does What?



# FV OV-2 – A1 Level – Who Does What?

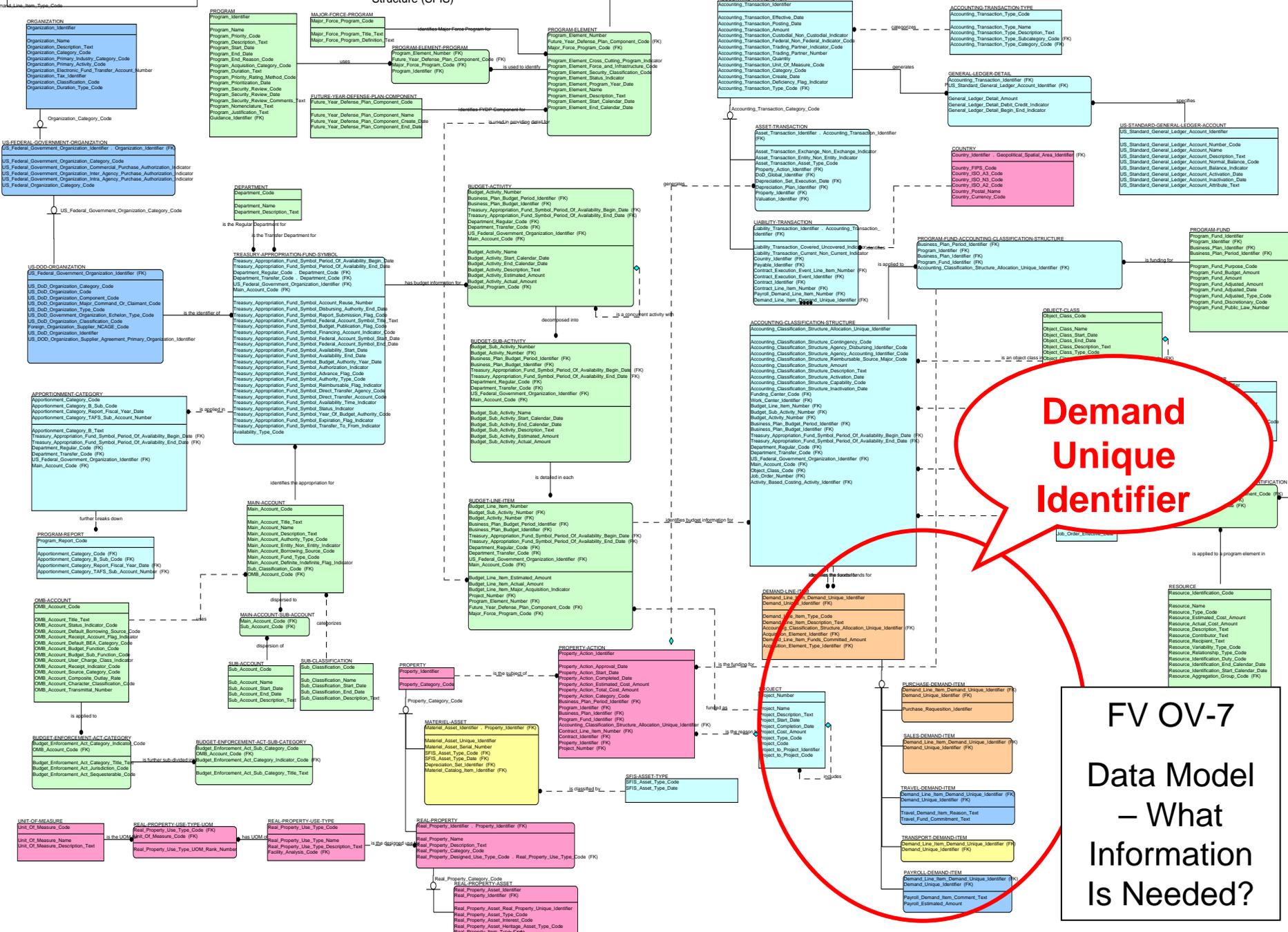
1/20/2012 FY with Subprocess 01/10/12 (No Node Connecting)  
System Abstract  
Tue Aug 02, 2005 10:28



# FV OV-3 – Information Exchange – Who Says What To Whom?

| Need Line                    | Information Exchange                               | Source Node | Source Activity  | Destination Node     | Destination Activity   | Content  |
|------------------------------|--|-------------|--|----------------------|------------------------|--|
| RPILM - FM Accounting Office | Seller Materiel and Maintenance and Service Status | RPILM       | Perform Build and Make and Maintenance and Sustainment<br>Perform Asset Accountability     | FM Accounting Office | Post to General Ledger | This is the information regarding the provision of goods or services with data for collection and shipment planning to include, but not limited to: status or evidence from operational execution activities of HRM, Logistics, and I&E for schedule and cost. |
| RPILM - FM Accounting Office | Updated Asset Record                               | RPILM       | Perform Build and Make and Maintenance and Sustainment                                     | FM Accounting Office | Post to General Ledger | This is the continuous aggregation of descriptive characteristics of an asset under Department of Defense accountability.  |
| RPILM - FM Accounting Office | Updated Liability Record                           | RPILM       | Perform Environment Safety and Occupational Health Service<br>Perform Asset Accountability | FM Accounting Office | Post to General Ledger | Upon partial liquidation of a liability, the liability is recalculated to show new amount outstanding.   |
| MSSM - FM Accounting Office  | Seller Materiel and Maintenance and Service Status | MSSM        | Perform Build and Make and Maintenance and Sustainment<br>Perform Asset Accountability     | FM Accounting Office | Post to General Ledger | This is the information regarding the provision of goods or services with data for collection and shipment planning to include, but not limited to: status or evidence from operational execution activities of HRM, Logistics, and I&E for schedule and cost. |
| MSSM - FM Accounting Office  | Updated Asset Record                               | MSSM        | Perform Build and Make and Maintenance and Sustainment                                     | FM Accounting Office | Post to General Ledger | This is the continuous aggregation of descriptive characteristics of an asset under Department of Defense accountability.  |

### FV - Standard Financial Information Structure (SFIS)

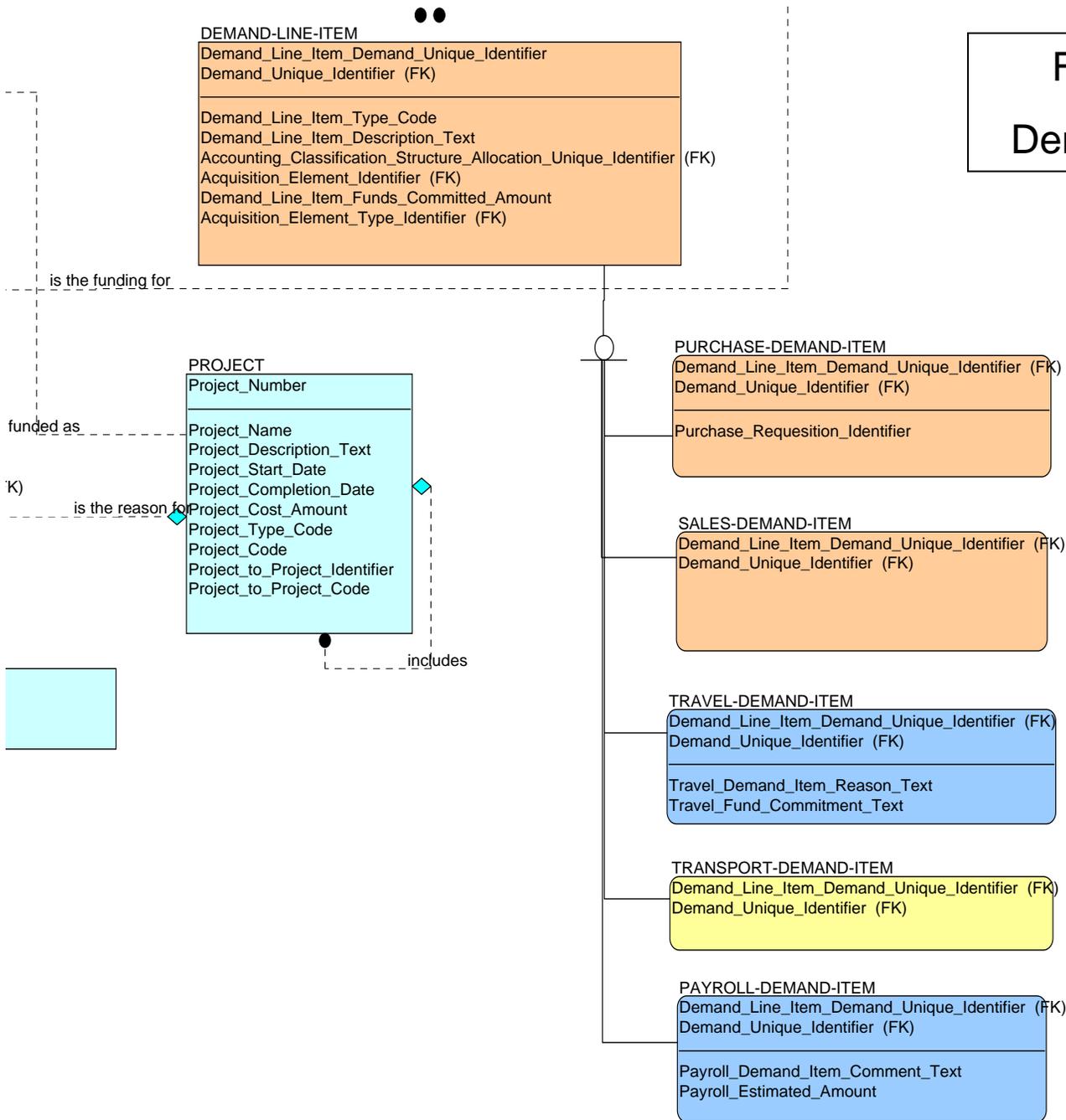


**Demand Unique Identifier**

**FV OV-7**  
**Data Model**  
 – What Information Is Needed?

# FV OV-7 Data Model

## Demand Unique Identifier



## FV OV-6a Business Rules

### Demand Unique Identifier

| A                               | B   | C                   |
|---------------------------------|---|---------------------|
| Name                            | Description <-- Description   | BR Source Type      |
| ENT_Demand_Unique_Identifier_1  | Obligation data must be uniquely identified at the line item or sub-line item level.  | Derived Requirement |
| ENT_Demand_Unique_Identifier_2  | Unless otherwise authorized by Office of the Under Secretary of Defense (Comptroller) OUSD (C ), commitment accounting is required based on authority and availability of funds upon the creation of the Demand Unique Identifier (DUID). | Derived Requirement |
| ENT_Demand_Unique_Identifier_3  | A Demand Unique Identifier (DUID) must be created when funds are committed.   | Derived Requirement |
| ENT_Demand_Unique_Identifier_4  | Each Demand Unique Identifier (DUID) must relate to only one Allocation Unique Identifier (AUID).   | Derived Requirement |
| ENT_Demand_Unique_Identifier_5  | Each Allocation Unique Identifier (AUID) may be associated with one or more Demand Unique Identifiers (DUID).   | Derived Requirement |
| ENT_Demand_Unique_Identifier_7  | Each Subsequent Unique Identifier (UID) must be associated with precedent UIDs  | Derived Requirement |
| ENT_Demand_Unique_Identifier_8  | If multiple funding sources within the demand, there must be a Demand Number Plus Suffix for each funding source.   | Derived Requirement |
| ENT_Demand_Unique_Identifier_9  | If multiple funding sources within demand line items - there must be a Demand Number Plus Suffix for each demand line item, and second suffix for each funding source.  | Derived Requirement |
| ENT_Demand_Unique_Identifier_10 | Each Demand Unique Identifier (DUID) suffix must be at the sub-line item level.   | Derived Requirement |



# FV System Functions SV-5 – What Can Be Supported Through IT Automation?

|  | Forecast, Plan, Program and Budget |                                       |                   | Managerial Accounting         |                                 |                                   | Manage Financial Assets & Liabilities |                              |                        |                    |             | Manage General Ledger |                        |                               |                                 | Funds Allocation, Collection, Control, and      |                    | Financial Reporting  |  |
|--|------------------------------------|---------------------------------------|-------------------|-------------------------------|---------------------------------|-----------------------------------|---------------------------------------|------------------------------|------------------------|--------------------|-------------|-----------------------|------------------------|-------------------------------|---------------------------------|---|--------------------|----------------------|--|
| Operational Activity                   | Formulate Program and Budget       | Develop Resource and Performance Plan | Allocate Resource | Define Cost Performance Model | Populate Cost Performance Model | Perform Cost Performance Analysis | Calculate Entitlement                 | Manage DoD Contract Pay Debt | Manage Delinquent Debt | Manage Investments | Manage Cash | Manage Billing        | Post to General Ledger | Manage Execution Fund Account | Manage General Ledger Structure | Manage Standard Financial Information Structure | Manage Collections | Manage Disbursements | Manage Financial Reporting Requirement |
| <b>System Functions</b>                |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    |             |                       |                        |                               |                                 |   |                    |                      |  |
| Forecast Cash                          |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        | DCAS               |             |                       |                        |                               |                                 |   |                    |                      |  |
| Maintain General Ledger                |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    |             | BEIS                  |                        |                               |                                 |   |                    |                      |  |
| Manage Allotment and Allocation        |                                    |                                       | X                 |                               |                                 |                                   |                                       |                              |                        |                    |             |                       |                        |                               |                                 |   |                    |                      |  |
| Manage Billing                         |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    | X           |                       |                        |                               |                                 |   |                    |                      |  |
| Manage Business Enterprise Reporting   |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    |             |                       |                        |                               |                                 |   |                    |                      | BEIS, DCAS                             |
| Manage Business Plan                   |                                    | X                                     |                   |                               |                                 |                                   |                                       |                              |                        |                    |             |                       |                        |                               |                                 |   |                    |                      |  |
| Manage Collections                     |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    |             |                       |                        |                               |                                 |   | X                  |                      |  |
| Manage Commercial Pay Entitlements     |                                    |                                       |                   |                               |                                 |                                   | X                                     | X                            |                        |                    |             |                       |                        |                               |                                 |   |                    |                      |  |
| Manage Commitments                     |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    |             |                       | X                      |                               |                                 |   |                    |                      |  |
| Manage Cost                            |                                    |                                       |                   | X                             | X                               | X                                 |                                       |                              |                        |                    |             |                       |                        |                               |                                 |   |                    |                      |  |
| Manage Delinquent Debt                 |                                    |                                       |                   |                               |                                 |                                   |                                       | X                            |                        |                    |             |                       |                        |                               |                                 |   |                    |                      |  |
| Manage Disbursements                   |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    |             |                       |                        |                               |                                 |   |                    | X                    |  |
| Manage Financial Information Structure |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    |             |                       |                        | BEIS                          | BEIS                            |   |                    |                      |  |
| Manage Funds                           |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    |             |                       | X                      |                               |                                 |   |                    |                      |  |
| Manage Investments                     |                                    |                                       |                   |                               |                                 |                                   |                                       |                              | X                      |                    |             |                       |                        |                               |                                 |   |                    |                      |  |
| Manage Obligations                     |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    |             |                       | X                      |                               |                                 |   |                    |                      |  |
| Manage Receivables                     |                                    |                                       |                   |                               |                                 |                                   |                                       |                              |                        |                    | X           |                       |                        |                               |                                 |   |                    |                      |  |